

1 ABSTRACT OF THE DISCLOSURE

2 An emergency vehicle traffic light preemption system for
3 preemption of traffic lights at an intersection to allow safe
4 passage of emergency vehicles. The system includes a real-time
5 status monitor of an intersection which is relayed to a control
6 module for transmission to emergency vehicles as well as to a
7 central dispatch office. The system also provides for audio
8 warnings at an intersection to protect pedestrians who may not
9 be in a position to see visual warnings or for various reasons
10 cannot hear the approach of emergency vehicles. A transponder
11 mounted on an emergency vehicle provides autonomous control so
12 the vehicle operator can attend to getting to an emergency and
13 not be concerned with the operation of the system. Activation
14 of a priority-code (i.e. Code-3) situation provides
15 communications with each intersection being approached by an
16 emergency vehicle and indicates whether the intersection is
17 preempted or if there is any conflict with other approaching
18 emergency vehicles. On-board diagnostics handle various
19 information including heading, speed, and acceleration sent to
20 a control module which is transmitted to an intersection and
21 which also simultaneously receives information regarding the
22 status of an intersection. Real-time communications and
23 operations software allow central and remote monitoring,
24 logging, and command of intersections and vehicles.